

# THE SILVER SITUATION

An Analysis  
of Existing Conditions and  
Forecasts of the Future  
of the White Metal

By  
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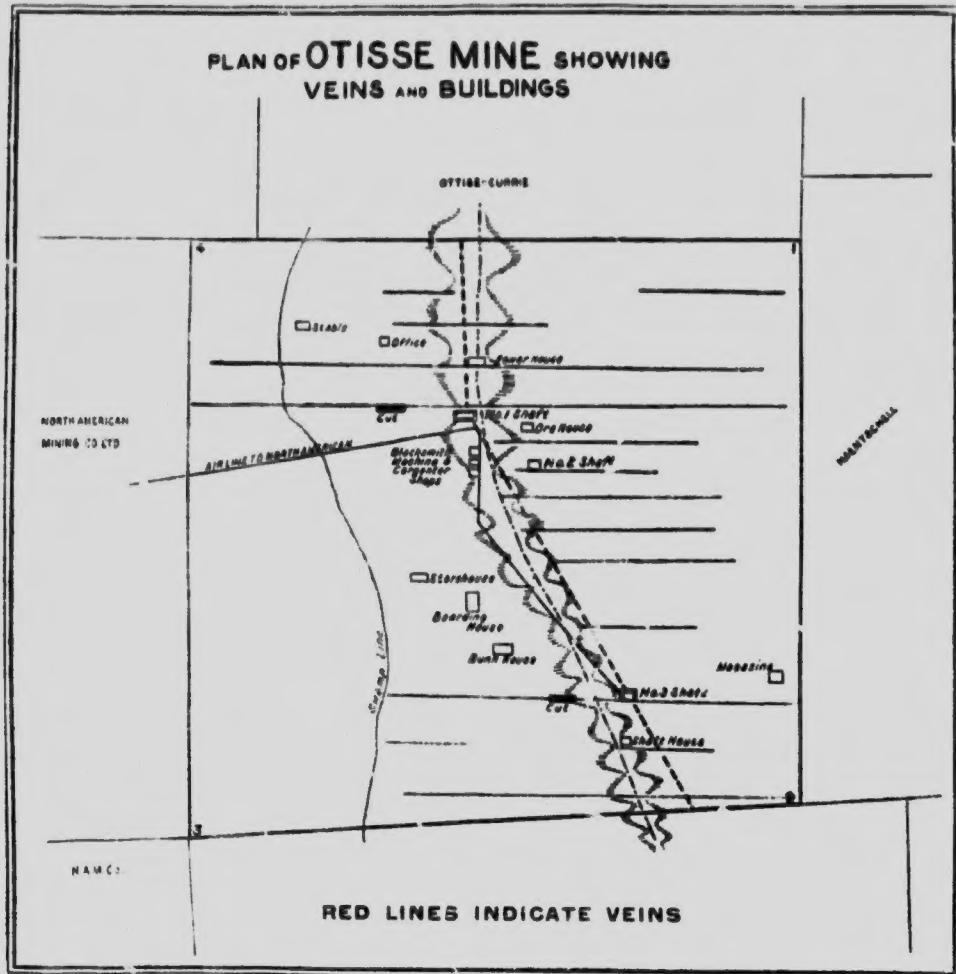
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# The Silver Situation

B Y J A M E S S. H. U M S T E D

## I.

**S**TUDENTS of silver statistics and the history of the commodity have often confessed that the subject exercised a peculiar fascination upon them. We have seen how politicians have been carried away by it until the metal, considered in debate on currency controversies, has been virtually idealized as a hapless, suffering feminine goddess persecuted to the ends of the earth by the conspirators of the gold standard. There is, therefore, much to lend peculiar interest to any study of silver, for while gold has been a cold, relentless instrument for the basic measure of values, silver has been attractive not only because of the fluctuation in production and the periods of different discoveries, but because it has been, in its economic fate, linked largely with the history of polities as well as that of finance. There can be no doubt that England's vigorous upholding of the gold standard in the last century was dictated as much by her belief that she held a superior position in the possession of gold supplies and dominance in the ocean trade over political rivals as to any conviction that the double standard was impracticable economically. Nor is there any reasonable doubt that Germany, after her military victory over France in 1870-71, adopted the single gold standard for the new Empire and began in 1873 her enormous sales of silver in the belief that her course would result in the financial ruin of her enemy, beaten on the physical battlefield. It is not our purpose, however, to attempt any elaborate history of the white metal. It has not quite passed beyond the influence of possible currency rearrangements and never can so long as silver remains the chief money of such enormous aggregations of peoples as those of China and India. But practically its price-future will depend upon considerations outside of the range of currency controversy—the old "battle of the standards" among the leading trading nations of the world.

Fresh interest in the commodity's position and prospects has been aroused in recent years by the sensational discoveries of silver in the Dominion of Canada. The Cobalt fields have been proved to be of greater extent than supposed at the start; and of even higher importance has been the demonstration that the mines increase in richness at increasing depth. The new Montreal River discoveries may also assure even more prominence in the future to Canada as a producer of the white metal. But if one thing is clearer above another in any fair analysis of the recent history of silver, it is that Cobalt has not been responsible for the depression in the market price; and it will be found further that there is no danger

of Cobalt or other silver regions in the Dominion holding down the price in view of the other vital influences favorable to a rise in the price which are beginning to present themselves. Right here let us show the silver production of the Cobalt mines from 1904 to 1908 inclusive, as given by the Dominion Bureau of Mines:

Year	Ore Shipped Tons	Silver Contents Ounces	Value \$
1904.....	158	206,875	111,887
1905.....	2,144	2,451,356	1,369,503
1906.....	5,335	5,401,766	3,667,551
1907.....	14,788	10,023,311	6,155,391
1908.....	24,485	19,394,496	9,112,746

It is *a priori* evidence that Cobalt's output has not been the real cause of the fall in silver in 1908 when the recent history of the metal has furnished several instances where enlarged production has not resulted in a lower market for the product. The first great fall in silver in the last twenty-five or thirty years took place in the decade 1890 to 1900, largely because of the failure and final abandonment of the attempt of the United States Government to sustain the price through liberal purchases, first under the Silver Purchase Act of 1878 (authorizing the Bland silver dollar) and then under the Sherman Act of 1890, requiring the monthly purchase of 4,500,000 ounces and the issue of Treasury notes to pay for the bullion. In 1884 the average price of bar silver in London was 50 5-8d. per ounce; in 1885 it fell to 48 5-8d.; in 1889 the average price had fallen to 42 11-16d., but in 1890 it rose to 47 11-16d under the silver legislation of "the States"; then, in 1893, it was down to 35 5-8d., and in 1894 it averaged 28 15-16d. for the year.

To revert to the instances where the mere volume of production failed to determine the price, we may note: From 1888 to 1890 the world's production of silver rose from 107,696,915 fine ounces to 132,028,344 ounces, yet the average price of silver in London in 1888 was 42 7-8d. and in 1890 it was 47 11-16d.; from the lowest price of 41 5-8d. in 1888 and 41 15-16d. in 1889 there was a rise to 54 5-8d. in September, 1890. In 1899 the total production of silver was 167,224,243 ounces and by 1901 it had increased to 173,011,283. Yet the average price in 1899 was 27 7-16d., in 1900 it was 28 1-4d., and in 1901 27 3-16d. An extreme advance in those three years was witnessed from 26 5-8d. in 1899 to 29 9-16d. at the beginning of 1901. So, too, in 1905, though production rose 8,000,000 ounces over 1904, the average price of silver was 27 13-16d. against 26 3-8d. in 1904. In 1907 the production of silver was 185,014,623 ounces, as compared with 165,382,372 ounces in the previous year; yet the average price of silver for both years was substantially the same—30 7-8d. in 1906 and 30 3-16d. in 1907—

while the extreme range was from 29d. in March, 1906, to 32 7-16d. in January, 1907, and again in August of the last named year it reached 32 1-4d.

It may be said that there were two great periods in the last forty years when the increase in silver production was on so heavy a scale that it may be assumed to have been decisive of its market value, though even through these periods many other vital influences were at work, including monetary legislation, the great famine in India in 1877, minor but very severe famines there and in China, and the disturbances of panics caused by great wars like the Franco-Prussian War in 1870-71, and the Russo-Turkish War in 1877. We may divide these periods into two, one from 1868 to 1885 inclusive; the other from 1886 (the first year when the price of silver first averaged for the year at over \$1 at New York), to 1895 inclusive. The period from 1868 to 1885 was one of irregular fluctuations in annual output, but with the extreme between the highest and lowest year's production not in excess of 16,000,000 ounces; in fact, not quite up to those figures. The following tables show the total production of silver in fine ounces, the highest, lowest and average year quotations for bar silver in London (where the market is ultimately determined), and the average yearly price in New York City in United States currency:

PERIOD FROM 1868 TO 1885.

Year	World's Production, Fine Ounces	London Price High	Low d.	Av.	N.Y. Av.
1868	*43,051,583	61 $\frac{1}{2}$	60 $\frac{1}{2}$	61 $\frac{1}{2}$	1.326
1869	*43,051,583	61	60	60 $\frac{1}{2}$	1.325
1870	*43,051,583	62	60 $\frac{1}{2}$	60 $\frac{1}{2}$	1.328
1871	52,466,433	61 $\frac{1}{2}$	60 $\frac{1}{2}$	60 $\frac{1}{2}$	1.326
1872	56,881,165	61 $\frac{1}{2}$	59 $\frac{1}{2}$	60 $\frac{1}{2}$	1.322
1873	62,572,004	59 $\frac{1}{2}$	57 $\frac{1}{2}$	59 $\frac{1}{2}$	1.298
1874	64,160,372	59 $\frac{1}{2}$	57 $\frac{1}{2}$	58 $\frac{1}{2}$	1.278
1875	59,802,353	57 $\frac{1}{2}$	55 $\frac{1}{2}$	56 $\frac{1}{2}$	1.246
1876	63,537,256	58 $\frac{1}{2}$	46 $\frac{1}{2}$	52 $\frac{1}{2}$	1.156
1877	68,270,556	58 $\frac{1}{2}$	53 $\frac{1}{2}$	54 $\frac{1}{2}$	1.201
1878	72,648,794	55 $\frac{1}{2}$	49 $\frac{1}{2}$	52 $\frac{1}{2}$	1.152
1879	75,205,710	53 $\frac{1}{2}$	48 $\frac{1}{2}$	51 $\frac{1}{2}$	1.123
1880	76,472,737	52 $\frac{1}{2}$	51 $\frac{1}{2}$	52 $\frac{1}{2}$	1.145
1881	81,268,961	52 $\frac{1}{2}$	50 $\frac{1}{2}$	51 $\frac{1}{2}$	1.138
1882	87,619,253	52 $\frac{1}{2}$	50	51 $\frac{1}{2}$	1.136
1883	89,352,190	51 $\frac{1}{2}$	50	50 $\frac{1}{2}$	1.110
1884	86,218,220	51 $\frac{1}{2}$	49 $\frac{1}{2}$	50 $\frac{1}{2}$	1.113
1885	93,448,915	50	46 $\frac{1}{2}$	48 $\frac{1}{2}$	1.064

\*Deficient statistics justify reproduction of same figures for the three years.

PERIOD FROM 1886 TO 1895.

Year	World's Production, Fine Ounces	High	London Price d.	Av.	N.Y. Av. \$
1886	92,511,178	47	62	45 $\frac{3}{8}$	0.995
1887	98,115,529	47 $\frac{1}{2}$	43 $\frac{1}{4}$	44 $\frac{5}{8}$	0.978
1888	107,696,915	44 $\frac{9}{16}$	41 $\frac{1}{2}$	42 $\frac{1}{8}$	0.940
1889	124,199,779	44 $\frac{9}{16}$	41 $\frac{1}{16}$	42 $\frac{1}{16}$	0.935
1890	132,028,344	54 $\frac{1}{2}$	43 $\frac{1}{16}$	47 $\frac{1}{16}$	1.046
1891	137,965,412	48 $\frac{1}{2}$	43 $\frac{1}{2}$	45 $\frac{1}{16}$	0.988
1892	152,939,986	43 $\frac{1}{2}$	37 $\frac{1}{16}$	39 $\frac{1}{16}$	0.871
1893	166,100,277	38 $\frac{9}{16}$	30 $\frac{1}{2}$	35 $\frac{1}{8}$	0.780
1894	167,752,517	31 $\frac{1}{4}$	27	28 $\frac{1}{16}$	0.635
1895	169,180,249	31 $\frac{1}{8}$	27 $\frac{1}{4}$	29 $\frac{1}{8}$	0.655

PERIOD FROM 1896 TO 1906.

1896	157,061,370	31 $\frac{9}{16}$	29 $\frac{3}{4}$	30 $\frac{1}{4}$	0.674
1897	164,073,172	29 $\frac{13}{16}$	23 $\frac{1}{4}$	27 $\frac{9}{16}$	0.604
1898	173,227,864	28 $\frac{5}{16}$	25	26 $\frac{5}{16}$	0.582
1899	167,224,243	28 $\frac{5}{16}$	26 $\frac{1}{2}$	27 $\frac{7}{16}$	0.596
1900	172,838,873	30 $\frac{3}{16}$	27	28 $\frac{1}{4}$	0.613
1901	173,011,283	29 $\frac{9}{16}$	24 $\frac{1}{8}$	27 $\frac{9}{16}$	0.589
1902	162,763,483	26 $\frac{1}{8}$	21 $\frac{1}{16}$	24 $\frac{1}{16}$	0.522
1903	167,689,192	28 $\frac{1}{2}$	21 $\frac{1}{16}$	24 $\frac{1}{4}$	0.536
1904	164,195,266	28 $\frac{9}{16}$	24 $\frac{7}{16}$	26 $\frac{1}{2}$	0.572
1905	172,317,688	30 $\frac{5}{16}$	25 $\frac{1}{8}$	27 $\frac{1}{16}$	0.604
1906	165,382,372	33 $\frac{1}{8}$	29	30 $\frac{1}{8}$	0.665

SUPPLEMENTARY PERIOD.

1907	185,014,623	32 $\frac{7}{16}$	24 $\frac{3}{16}$	30 $\frac{3}{8}$	0.653
1908*	183,798,053	27	22	24 $\frac{1}{8}$	0.528

\*Estimated.

In 1907 the production of silver showed an increase over that of 1906 of 19,373,983 ounces, distributed as follows:

	In U.S.	In Mexico	In Australia	All other sources
1906.....	56,517,900	35,225,268	14,237,246	39,660,226
1907....	56,514,700	61,147,203	19,083,031	48,269,689
Decrease...	3,200			
Increase...		5,921,935	4,845,785	8,609,463

As Cobalt's production in 1907 was 10,023,311 ounces, and as Cobalt is included in the receipts from "Other Sources," in the above-given table, it follows that the increase in the production of Mexico and Australia was as much responsible for the decline in the price of silver as Canada was, if a total increase of less than 12 per cent. can be regarded as influential. In 1907 bar silver in London declined from 32 7-16d. in January to 24 3-16d. in December, a fall of 8 1-4d. But in 1908, although Cobalt nearly doubled its output (increasing it to 19,394,496 ounces), the preliminary estimates of the world's total output are for stationary figures, or

probably a slight decrease, as compared with 1907, owing to lessened work at the smelters of the United States and Mexico. Bar silver last year declined from 27d. in January to 22d. in December, a fall of 5d. as compared with a decline of 8 1-4d. in 1907, when Cobalt's output was only half of the yield in 1908. The lowest price in 1908 was only 2 3-16d. under that of the preceding year. We know that Cobalt's production this year has been expanded, and yet bar silver has rallied more than 2d. above the lowest point of last year.

## II.

But an analysis of the silver market of the last few years, and of the factors that have been at play, will demonstrate that Cobalt production has been a negligible quantity.

On April 15, 1905, the mints of Mexico were closed to the free coinage of silver in accordance with the plan for the reform of the Republic's financial system and the maintenance of a stable rate of exchange. To offset this, however, there were heavy purchases of silver by Russia, prior to the termination of the war with Japan, for the purposes of the campaign in Manchuria. The Mikado's Empire also was a buyer of silver in Mexico and the United States. The Indian Government continued the heavy purchases of the metal it began in 1903. Russia's purchases of silver alone are estimated to have equalled £4,000,000. The world's silver production that year increased nearly 5,400,000 ounces. Bar silver after reacting from 28 3-8d. to 25 7-16d. in April, rose to 30 5-16d. in December, which last-given price was the highest touched since October, 1896. In 1906 bar silver, after a lapse to 29d. in March, rose gradually to 33 1-8d. on November 17, the highest price recorded since December, 1893. What were the stimulating influences for this movement? Primarily, the unexampled prosperity of British India, following excellent crops in the previous season, which were reinforced in 1906 by large yields of rice, cotton and jute which commanded record prices. This great export trade created a big demand for currency and to meet it the Indian Government was once more compelled to buy heavily of silver, some authorities estimating the purchases at about £13,000,000—part of them were also in connection with the creation of a "special reserve fund." Furthermore, the French Government mints went into the market for 265,000 kilos for coining purposes and the United States Government resumed purchases for subsidiary coinage, the first since the repeal of the Sherman Act in 1893, taking between 5,000,000 and 6,000,000 ounces. Another contributing cause was the increase in England's silver coinage to £1,821,798, against only £316,206 in 1905—a larger coinage in fact than in any previous year since 1900. The year's exports of silver from London, Venice and Marseilles to the East rose to £15,565,334, against £8,643,405 in 1905. England's imports of silver in 1906 were £17,288,063, compared with £12,992,014 in the previous year, and were the

largest of any preceding year since 1897. During the year, when these various favorable influences prevailed, the exportation of Mexico's demonetized dollars continued on a large scale. In fact, they reached a volume which at last alarmed the Republic's banking and commercial community, and by vigorous agitation and petition the Government was induced to place a 10 per cent. export duty on silver dollars. Of course, the arrival of the gold paid for the silver dollars purchased relieved Mexico's fears of a currency famine. But, taken altogether, 1906 was a year of stimulating influences to silver which had been lacking for a long time.

But what was the story of 1907 and 1908? When the one matter is mentioned—the disastrous panic which swept the United States in 1907 and spread more or less damage to every quarter of the globe—it must be realized how imaginary is the talk of Cobalt's new supplies of silver having any effect beyond that of a drop contributed to a full bucket. Beginning its first acute demonstration in March, 1907, the American financial disorders, with only occasional interruptions, became worse as time went on and culminated in the October banking crashes, the runs on several trust companies and the paralysis of credit which carried currency to a premium and kept it there until December. The bitter experience of that period is too fresh in the minds of all of us to need detailed recital. Industry in the United States was completely prostrated for a time, the structure of railroad credit was strained almost to the breaking point and the world's commerce had to face the blow of a drop in the merchandise imports of the American Republic of over \$300,000,000 in the calendar year 1908 from the valuations of 1907. The decline in such imports in the fiscal year ended June 30, 1908, from the previous fiscal year (which included several months of unprecedented trade prosperity) was \$240,000,000. The currency necessities of the United States compelled that nation to bring in during the panic period \$100,000,000 gold from European and other foreign countries. The financial disturbance made every money market of the world stringent, forcing discount rates of the semi-Government control banks abroad to rise to figures practically unprecedented in decades. The buying of all but necessities of life for a time came to a halt and of course this included an enormous suspension of the ordinary demand for solid silver and even plated ware.

But, in addition to this American cataclysm and its far-reaching influences, the situation was aggravated by the failure of the southwest monsoon in India, which for a time created famine conditions there. One cannot easily measure the direct effect on the silver market of such visitations in the over-crowded districts of England's great Asiatic dependency. At such times tons of armlets, anklets and silver ornaments of every kind are brought in from the country districts and sold for any price they will bring to secure food for the wretched natives. Of course, these silver

articles are disposed of for less than their bullion value. And so, too, as an incident of importance, it may be mentioned that in the stress of the panic much old plate in England and Germany, where the industrial depression has been acute, must have been melted down and sold to relieve financial pressure. The normal condition of affairs in India was not only disturbed by the crop failure and its results, but the year 1908 was marked by political unrest that at one time threatened to assume large proportions.

The importance of India's misfortunes to the prosperity of the silver market may be realized by recalling the following statistics, the character of which was almost wholly determined by the unhappy phase of these Far Eastern affairs during the last two years: The exports of silver to the East fell from £15,565,337 in 1906 to £12,752,230 in 1907 and £10,243,968 in 1908. England's imports of silver declined from £17,288,063 in 1906 to £15,983,892 in 1907, and to £10,326,889 in 1908. Even England's coinage, which was £1,821,798 in 1906 and £2,039,400 in 1907, dropped to £1,009,206 in 1908, although the latter development may be credited more directly to the result of home trade depression. When one weighs the importance of the adverse events of the last two years, there is ample excuse for the downward course of the white metal without attempting to ascribe it to the new mining discoveries of the Dominion of Canada.

### III.

But let us put the past aside and examine the elements in existing conditions and in the reasonable prospects of the future for ground for judgment as to the next probable radical movement in the important commodity whose fortunes we have been discussing. Foremost must be placed trade revival, here and in the Old World. That it has reached us will hardly be denied by any candid observer. Canada happily suffered but a minimum of the disturbances which were so flagrant across its border. But in the United States the turn for the better in copper and lead prices and in several of the leading articles of manufacture in iron and steel is satisfactory proof that bottom has been grounded in the basic metal markets and that expansion has taken the place of contraction. The broader statistical evidences supplied by bank clearances, railroad earnings and building operations—which are liberally available and at frequent intervals—support but one conclusion, namely, that industry has for some time been on the mend. If the public as well as the private utterances of leaders in the financial, railroad and trading world were collated there would be found, I venture to say, a practical unanimity of opinion that the United States awaits only the establishment of a basis of certainty in tariff calculations to forge ahead with renewed activity. This greatly desired settlement is now to be counted on as a matter of weeks—even days. Concrete and very convincing indications of returning prosperity are to be found in the sharp rise in the values of diamond importations and

the increased domestic demand for such luxuries as automobiles noted in the last few months. To which may be added the testimony of the manufacturers of silver plate and plated ware that these branches of business are feeling the impulse of renewed expenditures by consumers. Responsive notes of recovery are heard from the other side of the ocean; when American prosperity is once again set toward a new zenith the improvement abroad will become more rapid, beyond a doubt.

Trade revival therefore holds out for silver the prospect of new and enlarging demands as against the antithesis of decline presented when the collapse of industry became obvious a year and a half ago. Soetbeer, the well-known economist and statistician, estimated the value of silver consumed in the arts and industries from 1871 to 1880 at an annual average of \$19,400,000. In 1893, another year of business depression, it was estimated by some authorities that the consumption was \$16,600,000. The Director of the United States Mint's latest estimate is that the world's consumption of silver in the arts (only new material being taken into account) was 92,568,300 fine ounces, of the commercial value of \$61,095,078, in 1907. Here is an increase of nearly 400 per cent. in the space of fourteen years. When one reflects upon the enormous rate of increase in the world's population at the present time, the rapid civilizing of heretofore benighted peoples, the lifting of the average conditions of social existence, and the ingenuity of modern manufacture and invention in devising means for exploiting the precious metals for utilitarian as well as ornamental purposes, the field for consumption of silver may be expected to widen continuously and at high speed with the return of new prosperity.

Expanding trade also calls for increased use of silver in subsidiary coinage. The expansion of demand for the white metal as currency is assured not only by the development of trade in the Eastern Hemisphere, but right at our own doors, we may say, there is a vast vista opened in the increasing means of communication and the rapidly enlarging exchange of commerce with the nations of South and Central America. Especially significant, of course, is the fact that these lands to the south of us, whose internal development and external commerce are as yet in their infancy, as viewed in the life of nations, are users of silver so extensively, speaking in proportions, in their currencies. Collection of world-wide statistics having a basis of reasonable accuracy is a slow process and it is to be regretted that much valuable tabular fact cannot be carried "up to date." But the immense importance of the world's increasing population and trade activities, together with the evidence of the tendency, when normal conditions prevail, toward an enlarged call for silver circulation, may be gathered from the compilation of the world's silver coinage for the last 20 years, the figures being given in fine ounces.

1888 .....	104,354,000	1898 .....	115,461,020
1889 .....	107,788,256	1899 .....	128,566,167
1890 .....	117,789,228	1900 .....	143,362,948
1891 .....	106,962,049	1901 .....	107,439,666
1892 .....	120,282,947	1902 .....	149,826,725
1893 .....	106,697,783	1903 .....	161,159,508
1894 .....	87,472,523	1904 .....	136,578,406
1895 .....	98,128,832	1905 .....	134,062,314
1896 .....	123,394,239	1906 .....	120,339,501
1897 .....	129,775,082	1907 .....	171,434,608

Note the influence which commercial panics or extreme trade crises have upon the use of silver for coinage purposes. The American reverses in 1893-4, which had been preceded by the Baring crash in England and the series of extensive bank failures in Australia, and which affected the world's trade additionally because of the acute mistrust of the integrity of gold payments in the United States, was followed by a decline in the world's silver coinage from 120,282,947 ounces in 1892 to 87,472,523 ounces in 1894. The after-recovery, stimulated by the victory for sound money in "the States" in 1896, was accompanied by a rise in coinage from 87,472,523 ounces in 1894 to 143,362,948 ounces in 1900, and, after a fall to 107,439,666 ounces in 1901, to further expansion to 161,159,508 ounces in 1903. Then, following the comparatively mild disturbances of 1903-4, coinage fell from 161,159,508 ounces in 1903 to 120,339,501 ounces in 1906. The world's industrial "boom" that got under way relatively soon after the 1903 halt, and did not culminate until well into 1907, we see by the above table again carried silver coinage upward, the figures touching 171,434,608 ounces in the latter year. Doubtless when the statistics of 1908 are fully available we shall find that there has set in a temporary reaction in the amount of the metal used for coinage purposes. But precedent points to the inevitable demand for more silver currency in the future as industrial vigor returns, and considering how comparatively brief has been the last period of depression, when the acuteness of the world's crisis is regarded, we are justified in looking for an early stimulus in this respect—one even more rapid than the rally in silver coinage consumption after the crisis of 1893. It may reasonably be assumed that Governments of foreign countries and experience will take advantage of the existing low price of silver to secure bullion for the coinage that will be demanded later on.

It may be of interest to append the following table of the silver coinage of the nations that have shown the largest rate of increase in the last few years before the crisis was actually reached, the commercial value of the silver utilized being given in American money:—

	1905.	1906.	1907.
United States .....	\$6,332,181	\$10,651,088	\$13,178,436
Philippine Islands .....	3,283,428	100,951	6,730,260
Great Britain .....	1,540,744	8,865,780	9,924,740
Germany .....	16,280,551	14,716,370	20,216,679
Turkey .....	687,314	738,991	1,323,756
India .....	36,889,486	64,891,356	84,630,837
Japan .....	4,932,418	4,096,944	8,586,999
Korea .....	249,000	647,400	517,920
Dutch East Indies .....	1,206,000	904,500	1,869,300
Brazil .....	.....	604,968	4,340,900
Chile .....	966,763	293,948	750,166
Colombia .....	.....	227,433	1,017,580
Peru .....	68,131	109,759	415,527
The world .....	145,331,224	155,590,466	221,652,826

As having specific bearing upon the question of coinage demand, reference may be made to the agreement of members of the Latin Union to increase the circulation of subsidiary coins from 12 to 16 francs per capita of population. Owing, however, to the fact that the re-coining of five-franc pieces, or equivalent coins, will use up a large part of the silver required by this movement, the demand for new metal may not prove important. But there is importance in the project of Germany to increase its silver currency at the rate of 5 marks per head during the next five years, as it is estimated that this will require about 1,200,000 kilos of silver. There is also a strong agitation for reform of the Chinese currency, looking to the establishment of a recognized silver coin of fixed purity and value, to issue from an Imperial Mint, and be legal tender for all Government dues and obligations. The inevitable result of such an important monetary step would be to limit the issue and manipulation of copper "cash" by the various Provincial Mints and create increased consumption of silver for coinage. In the wonderful development of trade promised for the Far East, not only because of the commercial activities of New Japan, but because of the coming unlocking of the doors of China to a freer intercourse with the Western World and the development that is taking place in Siam and in India itself, there is opened up an increasing absorbing power for silver that will doubtless lift the world's consumption of the white metal within a few years to figures not now generally dreamed of.

In considering the certainty of a future increase in the demand for silver for currency and coinage, one might mention the disappearance of the rather morbid fear of the metal in connection with these purposes which was bred by the old-time agitation of free coinage at an impossible ratio. The financial and commercial markets of the world were disturbed for decades, first by the anomalous position of the United States as virtually a gold-standard nation fearful of acknowledging the fact in formal law

and then by the really desperate political effort in the '90's to force the Congress to adopt free coinage of silver "independently" of the world. It seems almost remarkable that a Government which paltered over the word "gold" in its legislative terminology should have commanded such credit as did the American Government in its loan flotations in preparation of the resumption of specie payment on Jan. 1, 1879, and in its subsequent bond issues. Europe, happily, had confidence in the good faith of the men who were in control of the National Administration and invested its capital by the hundreds of millions in a country which never unqualifiedly wrote the word "gold" into its bond issues and laws until 1900, after the crushing defeat of Mr. Bryan by the supporters of the gold standard. Its confidence was never misplaced, even though in 1892-3 the United States Treasury hovered near default in gold redemption, and was only saved from it by the immovable integrity of a great President and the courage and patriotism of the country's leading bankers. But with the formal adoption of the gold standard by the United States, the free silver snake was killed, not merely scathed, and the superstitious dread of the white metal in mere currency considerations died out. Even in England, for nearly a century the citadel of gold in the "war of the standards," the fear of silver as currency is disappearing, and the Old Age pensions established by the present Government are being paid in the white coin. The needs of the Orient for silver in its currency will continue to increase year after year, whatever possible vicissitudes of monetary experience may be imagined for the nations of the West under the fantastic assumption that future plethora of gold production might drive the highest civilized countries to a "diamond standard" for measuring values.

So, too, in estimating the probable consumption of silver for art and industrial purposes, the fact must be considered that at least on this Continent the growth of population is attended by an increasing proportion of the people who are able to indulge in luxuries, therefore including silver plate and utensils, silver ornaments and articles utility at home or at the office, etc. And the tendency of mode thought and modern social machinery is to develop conditions that raise the power to consume luxuries more and more, even among the older and heavier debt-burdened peoples of the Old World. It is a truism that the rich are growing richer, but it is false to consider the dictum, "and the poor are growing poorer," as a complement to it. Millionaires and multi-millionaires may be growing more numerous, but the sociological programme of the Twentieth Century is to enlarge the field of comfort and luxury into which the great masses may enter.

A collocation of the various influences that may reasonably be expected to turn the course of silver upward leads to the conclusion that Canada's silver output could be increased materially without detriment to the market price. Cobalt's production has been shown

to have been really a negligible factor in the circumstances that combined in late years to depress the metal, and the Northern Ontario producers may continue active productive operations without fear that the increased output will offset favoring influences for years to come. We have seen that the amount of silver coined by the world in 1907 was over 171,000,000 fine ounces, and that the Director of the United States Mint estimates the world's consumption of silver in the arts in that year at more than 92,000,000 ounces, a total of about 264,000,000 ounces. As against this, there was an estimated production of the world in 1907 of something over 185,000,000 ounces. This would leave an apparent excess of consumption of 79,000,000 ounces. Owing to the peculiar features of the mining and marketing of the commodity, statistics of this nature are not conclusive. For practical purposes, however, they may be accepted as indicative of the broad movements of supply and demand, and the figures therefore show that Cobalt's production could be doubled without in itself operating as a depressing factor in the silver market. The consumption of silver in the arts and industries in the United States alone was, in 1907, in excess of 22,000,000 ounces, or more than Cobalt's present rate of production. Assuming that 1910 will see normal conditions of trade re-established the world over, and assuming that the Chinese minting system reform is carried out, we might readily see a coinage consumption of 200,000,000 ounces and an industrial consumption of 110,000,000 ounces, an aggregate of 310,000,000 ounces, to meet which Canada might add, say, 40,000,000 ounces and the other producing countries 85,000,000 ounces to the world's production of 185,000,000 ounces for each year, 1907 and 1908, before the total output would be brought to equality with the theoretical consumption.

Viewing all phases of the situation, it does not seem unreasonable to look to an early consumption of the white metal at the rate of 200,000,000 ounces a year. Such a market would assure 50 cents an ounce as the probable minimum of the price of silver. Below that figure many silver mines in various parts of the world do not find it profitable to operate, and therefore a fall below 50 cents would close those mines and automatically lessen production. Restraint of future production is also likely to be furnished to some extent, on the basis of so low a price for the metal, by the natural tendency of commodities to advance when established by revived industrial prosperity. We are already seeing the symptoms of this rise, "Bradstreet's" index figures for the average of leading commodities of May 1, 1909, being 8.3016, compared with 8.2167 on March 1, 1909; 8.0674 on Nov. 1, 1908, and 7.7227 on June 1, 1908. An advance in costs would, except in the case of the most advantageously situated mines, prevent production, or at any rate would force some of them to limit output to the ores most highly charged with values. There are many properties

to-day that indubitably have a hard struggle to pay expenses with silver above 50 cents; they would be disabled if the cost of materials and transportation should increase. The latter item—transportation—may hardly be expected to remain stationary when the units entering into the expense of railroad operation and maintenance move higher.

#### IV.

Right here becomes apparent the advantageous position occupied by the silver mines of the Dominion. Proximity to the ports of export is supplemented by the cheapness of mining, due to the character and the richness of the ore. I do not suppose that any one would challenge the claims of Cobalt for economy of production. In his statistical review in the mining report for 1908, Mr. Thomas W. Gibson, the well-known and widely-esteemed Deputy Minister of Mines of Canada, says: "The prosperity of the Cobalt mining camp, \* \* \* \* much less its existence, does not depend upon a high price for silver. The ores of Cobalt are so much richer than the average that many of the mines would continue to produce silver even in the face of a still further lowering of its value." According to the best authorities available, the average actual cost of producing silver by all of the Cobalt shipping mines does not reach 10 cents an ounce. The Temiskaming mine is said to be producing the metal at 6 cents an ounce; Crown Reserve costs are given as  $7\frac{1}{2}$  cents, and Kerr Lake's as 7 cents. It is understood, however, that these mines pursue the policy of charging all development work up to the average cost of silver bullion shipped. For instance, Kerr Lake is said to be adding between two and three tons to its ore reserves for every ton taken out. The actual costs of some of the mines run as high as 15 cents, but it seems safe to say that the average cost of every ounce of silver shipped from Cobalt does not exceed the estimate given above—10 cents. On such a basis it is obvious that, with an average price for the metal, year in and year out, obtainable at 50 cents or better an ounce, the good mines of Cobalt are assured of large and steady profits.

The low costs of Cobalt, of course, have vital relation to the permanency of dividends, which is so important an element in influencing investment. The Canadian Bureau of Mines gives the payment of dividends and bonuses to shareholders in Cobalt companies up to Dec. 31, 1907, at \$3,847,344. Of this amount \$1,954,450 was paid in 1906 and \$1,892,894 in 1907. These sums are outside of the returns made to the owners of some very close corporations or the profits realized by the owners of the O'Brien mine, which, the Bureau says, would bring the whole amount up to about \$5,000,000. The complete returns for 1908 are not yet available, but competent authority estimates the total payments at \$3,000,000, and the returns to shareholders for the current year will probably aggregate not far from \$4,000,000.

The principal mines have demonstrated their ability to pay dividends through such severe commercial distress and depression as has been the experience of the last year and a half. What, then, may be expected when the silver market returns to more normal price conditions? Given honest management and properties whose value is not over-expressed in excessive capitalization, it is a safe dictum for a country so young and possessed of so vast mineral and agricultural wealth as Canada, that, as a rule, any investment secured now will return not only proper interest on the capital invested, but will reach the hands of the next generation with the market value of the principal immensely enhanced. If this is so, it must be especially true of the great Cobalt silver district, of which it is safe to say that the surface only has been scratched.

#### NOTE.

In using statistics of silver production and coinage the writer has depended upon the careful work of the Director of the United States Mint. Other authorities to whom credit is due are Pixley & Abell and Mocatta & Goldsmid, of London; The Commercial and Financial Chronicle, of New York, and Muhleman's Monetary Systems of the World.—J. S. H. U.

#### GENERAL INFORMATION.

The Otisse Mine is situated near Silver Lake in what is generally known as the Montreal River Mining District, and is about thirty-five miles northwesterly from Cobalt, in the midst of that mining region whereof Cobalt, South Lorraine, Montreal River, Silver, Bloom, Miller, and Gowganda Lakes are parts.

The general trend of this mineral belt is northwesterly and southeasterly. Its known extent, especially to the west, is rapidly widening. The Montreal River district is about midway between the known southeasterly and northwesterly limits.

The geological conditions existing throughout this region are similar, and for all practical purposes it may be considered as one district, with a certainty that the history of the mines of COBALT will be repeated elsewhere to a greater or less degree.

Cobalt, owing to the fact that it was the first to be developed, offers the largest amount of evidence as to what may be expected under similar geological conditions. The history of Cobalt is so well known that repetition is unnecessary; suffice it to say that Coleman Township, in which Cobalt is situated, is to-day producing at the rate of two million ounces of silver per month, with a rapid increase from month to month, as well as largely adding to its reserves, and securing satisfactory evidence of continuation to depth.

## SILVER LAKE

Is especially characterized by the strength and persistency of its veins. On the Otisse, although the forty acres have been but partially prospected, over twenty veins have already been uncovered, and many are traceable for considerable distances, with ample evidence that the fissures will persist to depth.

The accompanying is a statement of Frank G. Loring, and he reasonably concludes that the *Otisse Mine will develop into an extensive and lasting producer.*

## REPORT OF FRANK C. LORING, ESQ., E.M.

### Otisse Mine, Silver Lake, Montreal River, Ontario.

The Otisse Mine, in which I am interested with others, and of which I am General Manager, is situated in the Temagami Forest Reserve, six miles west of Elk Lake City, on the Montreal River, near Silver Lake.

Property consists of a Crown Mining Lease of 40 77-100 acres, renewable in perpetuity. The rent is nominal and no royalty is imposed.

The present means of transportation are: In summer, by steamer from Latchford, on T. & N. O. Railway, to Elk Lake and Smythe, from which last mentioned place the mine is six miles distant. In winter, by sleigh from Charlton, on the T. & N. O. Railway, to the mine thirty miles.

## GEOLOGY AND VEINS.

Rock consists of diabase and gabbro. Surface, a series of benches on the edge of which rock outcrops. Where exposed it is shown to be fissured by a number of parallel seams and veins of general easterly and westerly trend, and nearly vertical in dip. Between twenty and thirty of these have been discovered, of more or less strength. Six are well defined veins which can be traced at various points from 500 to 2,000 feet, and are persistent, nearly straight in course, give evidence of lasting qualities longitudinally and to depth, and are from a few inches to two feet in width of movement.

Vein filling consists of the country rock of the region altered in structure and with streaks of calcite, smaltite and native silver, and at times the gangue contains leaves of native silver and argentite. There is as much reason for believing that ore exists at any depth as that it should exist at the surface.

The great number of veins known, their persistency, and the ease with which they can be worked from two or three main shafts, make it exceedingly probable that the mine will develop into a lasting and profitable producer.

Since taking charge of the mine, bunk-house and boarding-house capable of accommodating about eighty men, blacksmith shop, stable, storehouse, ore house, and other buildings have been erected. Engine and compressor-house is nearing completion. Wagon road has been reconstructed for two miles, two main shafts have been sunk by hand to depth of about forty feet, and considerable trenching has been done.

A machinery plant consisting of an eight drill compressor, two 80 H.-P. boilers, three hoists, pumps, drills, cars, and other necessary appliances have been purchased and are in process of erection. These should be in operation by the middle of February. Delay in transportation has retarded completion. Plant when erected will cost upward of \$20,000.00.

It is intended that mining operations shall be prosecuted in a systematic manner to the end that the various veins may be fully and properly developed. Nothing will be done meantime looking to immediate sensational results. The two main working shafts will be sunk one hundred feet and more, and drifts and crosscuts will be made from these shafts to open up the various veins already mentioned. It is my confident expectation founded on the number of strong veins existing, and the evidence afforded by rich ore already found, that the mine when developed must prove a heavy and steady producer, and a very valuable property to the Company's shareholders.

While operations to date have resulted in the production of considerable ore of value, it is not contemplated to make regular shipments until extensive development work, as above mentioned, has been done in the way of blocking out ore reserves, to the end that a standard of production may be established and maintained.

FRANK C. LORING.

Toronto, Ontario, January 25, 1909.

#### REPORT OF E. A. WILTSEE, E.M.

New York, Feb. 10, 1904.—The Otisse Mine is situated six miles west of Elk Lake City, near Silver Lake. Area, 40.77 acres. Rent nominal and no royalty.

TRANSPORTATION: In Winter by sleigh, 30 miles from Charlton, on the T. & N. O. Railway. In Summer, by steamer from Latchford on the T. & N. O. Railway to Elk Lake City, and Smythe, six miles from mine.

**FORMATION:** Diabase and gabbro, which I believe to be the best formation in the North country.

The property owned by the Company is easy to prospect and surface work has demonstrated a series of 20 veins approximately parallel, of which up to date twelve have shown native silver; and four of which, up to the present time, can be considered as principal ones, through their strength, size and continuity, and the high grade value they have produced. The minerals are practically identical with those of Cobalt. Native silver, smaltite and accompanying minerals, including argentite, are shown.

**VEIN CHARACTERISTICS:** In my opinion, the veins on this property will be found to be more persistent and permanent than those in the Cobalt District. Their course is certainly more regular and the vein filling makes them wider; and, in my judgment, they more nearly approach the character of typical true fissure veins. As far as strength and continuity are concerned they have been traced, shown and proved for distances of 500 to 2,000 feet. This should warrant permanency in depth. I also think that outside of the customary high grade streaks there will be found to be, practically throughout, a considerable quantity of concentrating ore, comprising the filling of the veins.

**DEVELOPMENT PLANS:** No criticism can be made upon the plan of development of this property. Two main shafts are being sunk, wisely located, so as to attack the various ore bodies from the most advantageous points and in such situations that ample fall will be provided for a concentrator when same may be warranted. The main or No. 1 shaft is now down about 40 feet and of ample size for the work that will be required of it. No. 3, on a separate vein, is down about 30 feet.

The management of the property has wisely abandoned the wasteful and unpractical method of mining from surface cuts, the extent of the veins and their permanency having been sufficiently indicated by the amount of this work already done. No efforts to extract ore will be made until the mine is opened and such extraction can be accomplished in a business-like and economical manner.

**EQUIPMENT:** The equipment provided can only be commended, as it is sound, practical and not extravagant, but capable of opening the property in an efficient, miner-like way. All buildings are substantial and well chosen.

**THE MANAGEMENT OF THE PROPERTY:** It could not be in better condition or in better hands. Work has been planned and started so that results will be achieved by the least expenditure of money in the best possible time, and of such a nature that the

expense of production will be at the lowest possible cost. At the time of my visit, practically all the plant was on the ground, hoisting works erected and all machinery being rapidly installed, while the sinking of the two shafts was being kept up.

**GENERAL CONCLUSIONS:** In my opinion the surface developments of the property indicate that these veins will be more permanent and persistent and regular than those of Cobalt. The same high values in native silver and rich smaltite ores are shown, but in addition to the rich streak, the enclosing portion of the vein, will, I think, in many instances, at least, be found to have profitable values in the shape of high grade milling ore. The number of veins and their parallelism and regularity, as well as the extent on surface, speak well, I contend, for their permanence in depth. I prefer the character of the vein formation to that of Cobalt.

**IN CONCLUSION:** While a property in this stage of development cannot be guaranteed as a mining investment, in my opinion, as a mining speculation, it is an exceptionally fine one, and the opportunity for probable future profit large. Results will be rapidly obtained from now on, and in a short time the property should be on a steady and profitable basis.

E. A. WILTSEE.

**P.S.—**In making this report, the writer wishes it distinctly understood that since seeing the property, he has become interested to a moderate extent in the shares of the Company.

#### INVESTMENT POSSIBILITIES.

June 1st, 1909.

The attention of foreign investors is directed to the possibilities of investment in good Cobalt properties in the development stage. A year ago, *Crown Reserve*, then in the development stage, could have been bought at 38; it is now quoted at 3.50 and pays dividends at the rate of 32 per cent. per annum. *Kerr Lake* (\$5.00 par value) which was then actively developing its property, could have been bought at \$3.00. It then paid 12 per cent. dividends, it now pays 24 per cent. annual dividends and is quoted at \$8.25. *La Rose* could have been bought a year ago at \$5.12, slightly over its par value of \$5.00 a share. It paid 12 per cent. dividends, but in the year its annual dividend has been increased to 16 per cent. and its shares are now \$7.50. *Tretheway* is another good

dividend payer that showed attractive investment possibilities. A year ago—then a non-dividend payer—it could have been bought at 76 $\frac{1}{2}$ . It now distributes an interim dividend of 10 per cent. and is quoted at 140 to 150. *Otisse* is a property possessing, in the opinion of mining men of experience, great potentialities. It is now in the development stage. It has more than twenty veins. A considerable number of these are known to carry silver values at the surface. Two shafts have been sunk since the property was acquired last fall, and these are now down, one 80 feet and the other 100 feet. From the 75-ft. level a crosscut is being run which will connect the two shafts, and cut in all, nine veins, six of which are rich at the surface. The officers of this Company are reputable business men. Its Engineer is one of the most eminent on the continent, and its mining operations are in the hands of thoroughly experienced men, with Mr. Williams, late of the Buffalo Mine, at their head. The policy of the Company is to go steadily forward to open up the property systematically. If *Otisse* should develop as well as some of the others mentioned it would, on account of the large number of its veins, rival the best of the Cobalts as a large and lasting producer.

Mr. Umsted, in his analysis of the silver situation, brings out some surprising facts. He shows that the world consumed 171,000,000 oz. of silver in its currency in 1907, and in the same year the arts and industries of the world absorbed 93,000,000 oz., a total of 264,000,000 oz. The highest record of production ever made was 185,000,000, and Cobalt's greatest annual production was 19,000,000 oz. The year 1907 was one of activity in America and Europe, but not in Asia, as India was suffering from famine and plague, and China was suffering from the effects of the Russo-Japanese war. The inference is that in years when trade is active in Europe, Asia and America, the world will normally consume even more than 264,000,000, or much in excess of the world's present production. In his contention that the motive forces shaping the value of silver are such as to lead to the belief that there will be a gradual rise, Mr. Umsted shows that in the price record, going back forty years, only in 1908-9 has silver quotations been really low. These low prices he points out were due to world-wide trade depression, and not to over-production, which he shows was not the influential factor in bringing about a decline in prices. The Cobalt onlooker sees a train load of rich ore going out to the smelters and immediately concludes that when this is thrown on the market silver prices will decline. His sense of proportion is at fault. Shipments of ore from Cobalt do not determine the world's price of silver. The vast consumption of the rapidly developing commercial nations in the tropics and semi-tropics is a greater factor than Cobalt in shaping values, and this is only one of many factors which are con-

tinually determining silver prices. Mr Umsted draws attention to another vital matter. The price of commodities, owing to the increasing gold output, is rising. Flour, meats, timber, iron, steel, etc., etc., are advancing in price. Many silver mines now operating have a very slender margin of profit at prevailing low prices of silver. If silver does not advance and commodities continue to advance mining costs in many instances will rise above mining revenues, and these mines in Mexico, Australia and other quarters of the world, must close. This will tend to automatically reduce the world's production of silver, and later tend to bring about an advance in silver prices. His contention that silver is unlikely to sell under 50c. an ounce, is based on uncontrovertible facts. A few years ago the price of wheat declined to under 60c. a bushel, and it was predicted by many prophets that wheat would never reach \$1.00 a bushel again. They gave as their reasons the vast and increasing output from Argentine and the low cost of production there, much as the present predictions of low prices for silver are based on Cobalt's low costs and large production. Yet, the world's consumptive demand for wheat has overtaken the world's production, notwithstanding the fact that Argentine's export surplus in the past two years has exceeded 240,000,000 bushels, or an average of 120,000,000 bushels a year, the largest ever recorded. Owing to the increased consumption, wheat is now scarce and bringing more than \$1.25 a bushel. It seems clear, from the facts set forth by Mr. Umsted, that the world's consumptive demand for silver is certain to overtake the world's production unless it is stimulated by materially higher prices. With a price of 50c. or better, the good Cobalt mines can make enormous profits, as the average cost of producing silver by the shipping mines probably does not exceed 10c. an oz.

Early in the year the plant was erected and put in motion and has been in full operation for several months.

The Otisse property will be opened up rapidly from now on. The crosscutting of nine veins, now in progress, will admit of very extensive drifting operations, and as six of the nine veins are known to be rich at the surface, news of importance is looked for in the near future.

